GUIDELINES FOR REVIEW CONSULTANTS
P30 MARINE AND FRESHWATER BIOMEDICAL SCIENCES
CORE CENTER GRANT APPLICATION
NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES
DIVISION OF EXTRAMURAL RESEARCH AND TRAINING
SCIENTIFIC REVIEW BRANCH

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Purpose of NIEHS Core Center Support

An NIEHS P30 Marine and Freshwater Biomedical Sciences Center (MFBS) award supports centralized resources and facilities shared by investigators having existing funded, peer-reviewed research projects. Its intent is to stimulate the greater utilization of marine and freshwater organisms as models for elucidating mechanisms of toxicity of environmental agents that will ultimately address problems of human health. A P30 award should help to integrate and promote research in existing projects and establish an administrative framework that is conducive to the conduct of interdisciplinary research directly applicable to human environmental health science. By providing a center structure and core resources, this support should enhance the productivity of traditional research grants and foster interaction among a group of established investigators. An NIEHS center should provide an added dimension to a research effort such that the net accomplishment is greater than that possible by the support of individual projects alone.

The intent of NIEHS is to build upon and integrate existing programs and institutional resources which are already developed, peer reviewed, and supported on an individual project basis. Support for a center may include administrative and facilities personnel, equipment, supplies, services, program enrichment activities, pilot studies, and community outreach. There are two types of MFBS Centers appropriate for this program, those which function throughout the year and those whose activities are primarily during the summer months. In addition to core funds for facilities and administration, the MFBS Center grants can support pilot projects in the year-round Centers and short-term projects in the Centers active primarily during the summer.

It is <u>not</u> the purpose of the program to support research in marine and freshwater sciences, physiology of aquatic species, ecology, pollution monitoring, food safety, chemical transformation in the aquatic environment, food chain biomagnification, etc. These types of studies are best supported by other agencies.

Steps in the Review of NIEHS P30 Applications

The review of a P30 application generally consists of a three-step process. The institution is usually site visited by a group of experts who, under the authority and responsibility of the NIEHS Scientific Review Administrator, gather information for final evaluation by the Environmental Health Sciences (EHS) Review Committee.

The EHS Review Committee is a chartered review committee of NIH. Based upon consideration of the written report of the site visitors and it's own deliberations, the EHS Review Committee provides a final merit evaluation and a budget recommendation for the application in the form of a summary statement.

NIEHS conducts an ad hoc review when conflicts of interest arise (e.g., in the case of an application in which an EHS Review Committee member has a tangible role). In these cases, a

two-step initial review is conducted in lieu of the three-step process. The written evaluation of the site visit team becomes the final summary statement for the application.

The National Advisory Environmental Health Sciences Council (NAEHSC) is the third stage of the review process. NAEHSC can concur with recommendations of the initial review group, return the application for rereview, or make other recommendations; it cannot change a priority score assigned by an initial review group. Only after NAEHSC has completed its evaluation can an application be considered for funding.

Peer Review of a P30 Application

A P30 supports only those functions and salaries that directly facilitate and/or promote research activities of the center as opposed to other activities that are traditionally the responsibility of any institution, whether it is an academic or a free standing organization. Costs of an NIEHS center should not duplicate services normally supported through indirect costs within the institution; nor should costs replace functions or services normally provided to comparable units of the institution, e.g., departments.

The purposes of a P30 grant are to:

- Enhance the nature, direction, quality, and productivity of the research.
- Provide an organizational focus and stimulus for promotion of interdisciplinary research to enable investigators to take maximum collective advantage of scientific opportunities and institutional resources aimed toward the ultimate goal of reducing human illness and dysfunction due to environmental exposure.
- Make the whole of the research effort and accomplishments of the center greater than would be expected from the individual research projects.

Peer reviewers are responsible for preparing an evaluation of a P30 application that consists of the following components:

(1) resume
(2) overall description
(3) review of the six essential characteristics
    (a) interdisciplinary coordination
    (b) overall organization and facility
    (c) center director
    (d) institutional commitment
    (e) research focus in environmental health sciences
    (f) community outreach and education program

(4) review of administrative core
(5) review of scientific research cores
(6) review of facility cores
(7) review of pilot project program
(8) inclusion of women and minorities
(9) other considerations

Each of the components to be evaluated is described as follows:

(1) Resume

The Resume should provide a brief description of the proposed center and a discussion of the major strengths and weaknesses upon which the overall recommendation is based. The following guidelines should be summarized:

- Overall quality and productivity of the research programs of the center, placing special emphasis on the interactive, collaborative research opportunities stimulated by the center and the opportunity for the center over time to strengthen its interdisciplinary science base.

- The degree to which the center meets all the following essential characteristics: interdisciplinary coordination, overall organization and facility, center director, institutional commitment, research grant focus in environmental health sciences, and community outreach and education.

- The degree to which the center takes optimal advantage of the size and breadth of its research base in identifying and implementing research activities that are interdisciplinary in nature, occur among research cores, and have or are likely to have a significant impact on reducing incidence and mortality of disorders having an environmentally related etiology.

- For new applications, evaluate how a Center will enhance the productivity of Center members and potentially expand the research grant base.

- For competing continuation applications, determine if important discoveries or major accomplishments have occurred since the last review. Give examples. Evaluate the impact and productivity of the Center through publications, conferences, new funded research grants in environmental health sciences, new colloborations with other organizations, etc. Determine whether the productivity of Center members and the scientific impact of their findings are greater than would occur if the Center did not exist.

- For a competing continuation application, evaluate the effectiveness of the center in developing critical areas of research and building upon research opportunities.

(2) Overall Description

Review of an NIEHS center application includes an overall description of the center, addressing each of its components, its history, and its current structure and operation.

(3) Review of the Six Essential Characteristics

A center must exhibit strengths in the six essential characteristics before it can receive a P30 grant. All are necessary and must be approved by peer reviewers. Please briefly summarize the strengths and weaknesses in each area as they apply to the overall center (one paragraph or less per element) and assign to each an adjectival descriptor.

(a) **Interdisciplinary Coordination**

Interdisciplinary coordination and colloboration are distinguishing features of a NIEHS center. Such interactions should strengthen the productivity of Center members. There should be research activity in a variety of disciplines and there should be a high degree of coordination, interaction, and collaboration among center members such that the center promotes creative, innovative, high quality interactive research opportunities, i.e., "The whole is greater than the sum of its parts."

- Evaluate the degree to which Center support facilitates interactions, efficiencies, and productivity. Examples of interdisciplinary activity include: (1) collaborative and interdisciplinary research efforts, (2) collaboration among laboratory investigators, (3) publications resulting from such collaborative efforts, (4) significant sharing of facilities and equipment, and (5) seminars involving all Center members.

- When there are multiple institutions and/or departments comprising the center, evaluate how well the center promotes communication and collaboration among these components in order to take maximum advantage of research capabilities and effectively integrate participating institutions into the research programs of the center. Evaluate the commitment of the leadership of the member institution or department to the center and the authority of the center director within the multiple component framework.

- For competing continuation applications, evaluate the extent to which interdisplinary coordination and collaboration have enhanced the progress and achievements of the Center since its last competitive renewal.

- Evaluate whether the center as a whole is greater than the sum of the individual projects.

(b) **Overall Organization and Facilities**

The resources, facilities and organizational arrangements should be appropriate for the conduct and evaluation of center activities, and serve to stimulate collaboration among constituent programs. The center must have appropriate and adequate resources dedicated to the conduct of administrative, shared facility, and research activities.

- Evaluate whether the overall programmatic structure of the center is designed to promote scientific interactions and take maximum advantage of the institution's research capability.

- Evaluate whether the organization of the center is structured and managed in a way that would maximize scientific productivity.

- Evaluate the overall availability, location, and configuration of facilities devoted to the center to promote its research activities.

- Determine whether there is adequate oversight of facilities providing shared resources for center members.

(c) **Center Director**

The qualifications of the center director as a scientist and an administrator with clear leadership experience appropriate to the nature and complexity of the research objectives of the center are critical to a center's success.

- Evaluate the abilities of the center director in providing leadership and direction commensurate with the complexity and breadth of the research base of the center.

- Evaluate the appropriateness of the center director's allocation of time for direction, planning, and development of research activities of the center relative to his/her other responsibilities.

- Evaluate the authority and effectiveness of the center director in appointing new members to the center and in discontinuing membership status, when appropriate. Evaluate whether the center director has control of faculty appointments to the center and/or joint control (e.g., with a department chairman) of recruitments of individuals who could be members of the center.

- Evaluate the adequacy of the center director's input into the utilization of space in the institution, and determine how effectively this will work or has worked in promoting the research capabilities of the center.

(d) **Institutional Commitment**

There must be a strong institutional commitment to the center.

- Evaluate the effectiveness of the NIEHS center as a formal organizational component within the institution relative to other organizational components. Determine whether the reporting, accountability, and management structure of the center within the institution are equivalent to that of comparable organizations within the institution.

- Evaluate the specific resources provided by the institution such as personnel, appropriate facilities, financial support, and other forms of support that reflect the level of the institution's commitment to the functional stability, continuing development, and success of the center.

- For a competing continuation application, evaluate the degree to which specific commitments and plans for the center from previous competitive reviews were addressed.

- For a competing continuation application, evaluate whether the level of the institution's commitment to the center has increased or decreased over time and whether the commitments have adequately recognized the needs and collective research capabilities of the center as the size and nature of the research base has changed.

(e) **Research Focus in Environmental Health Sciences**

To qualify for P30 support, a center must have a clearly identifiable overall major scientific focus in marine and freshwater biomedical science research applicable to the environmental health sciences. NIEHS program staff will determine that the applicant has met the minimum criteria of $250,000 in research grant support (including a minimum of three peer-reviewed research grants) related to environmental health sciences.

- Depending on the nature of the Center, evaluate its overall focus in relation to the research grant base, research cores, and interprogrammatic interactions.

- Assess the capacity of the Center to foster interdisciplinary, state-of-the-art, innovative research approaches that can significantly impact our present understanding of its chosen scientific focus.

- For a competing continuation application, evaluate changes in the environmental health sciences research orientation of the Center, if any, and their impact on the center since the last review.

- Evaluate the size and breadth of the marine and freshwater biomedical science research base that is directly relevant to the environmental health sciences. Determine its adequacy and sufficiency to provide an effective research orientation for the center.

(f) **Community Outreach and Education Program (COEP)**

NIEHS Centers are required to develop and maintain community outreach and education activities. The support of $20,000 for this endeavor is allowed. The objective of the COEP is the translation of research results into knowledge applied to public health. Appropriate activities may consist of continuing professional education, disease prevention programs, education (primary, secondary, and/or college), information dissemination, community issue programs, public awareness seminars, etc. Since the COEP will be handled as a separate program within the center, the review will be similar to a core.

Review of the COEP should include a Description, Critique, Personnel, Budget and Recommendation.

PLEASE USE THE FOLLOWING FORMAT FOR WRITING THIS SECTION:

Description: Discuss the specific aims and future direction of the proposed COEP. (Primary Reviewer Only)

Critique: The strengths and weaknesses of various aspects of the COEP should be presented assessing the merit of the COEP, the plans for the future and commenting on past progress. Please refer to the review guidelines below.

Key Personnel: Evaluate the qualifications of the professional staff who will participate in the COEP in terms of their past achievements, their contribution to the proposed program, and the adequacy of their time commitment.

Budget: Evaluate the proposed budget and detail any recommended modifications in the requested budget and/or period of support. Adequate justification for these changes must be presented.

Summary and Recommendation: Briefly (2 or 3 sentences) summarize the major considerations of the critique section which form the basis for the recommendation. Give the descriptor based on your recommendation (see descriptors page 16)

The review guidelines to be used are as follows:

- Assess the merit of the specific plans, activities, and coordination proposed for the COEP, particularly with respect to their relevance to the Center's defined

community and targeted audience..

- Evaluate the effectiveness of the Center in establishing or continuing a COEP that makes maximal use of the Center's strengths in educating the public and surrounding community with regard to reducing environmental disease risk and/or hazard exposure.

- Discuss whether the COEP is a logical outgrowth of the scientific focus of the center, and the potential for mutually derived strengths.

- For competing continuation applications, evaluate past progress in the development of an effective COEP and the impact that the Center has had on the local community. Give examples.

(4) Review of Administrative Core

The administrative structure should include, in addition to the Director, a Deputy Director, a business manager, an internal advisory committee, and an external advisory committee. Individuals in senior leadership positions should provide intellectual, administrative, and scientific leadership for the center and are critical to its overall effectiveness and evolution. These individuals should be in place and committed to a defined per cent effort.

The Administrative core should promote joint planning and evaluation activities as well as collaborations and interactions among different research cores of the center. The center must have appropriate and adequate management capabilities to conduct research and to evaluate and plan center activities.

PLEASE USE THE FOLLOWING FORMAT FOR WRITING THIS SECTION:

Description: A concise description of the administrative structure of the Center, including any changes in the proposed structure vs. the current one, and covering the composition and function of the internal and external advisory committees. (Primary Reviewer Only)

Critique: The strengths and weaknesses of various aspects of the Administrative Core and administration of the Center should be presented assessing the appropriateness of the proposed structure and commenting on past effectiveness. Please refer to the review guidelines below. The write-up should justify the recommendation.

Key Personnel: The qualifications of the professional staff who will provide senior leadership should be evaluated with an assessment of their past involvement in Center activities, their anticipated contributions to the proposed Center, and the adequacy of their time commitment.

Budget: This narrative section should evaluate the proposed budget and detail any recommended modifications in the requested budget and/or period of support. Adequate justification for these changes must be presented.

<u>Summary and Recommendation</u>: Briefly (2 or 3 sentences) summarize the major considerations of the critique section which form the basis for the recommendation. Give the descriptor based on your recommendation (see descriptors page 16)

The review guidelines to be used are as follows:

- Evaluate whether the lines of authority and the administrative structure are designed for effective center management.

- Evaluate the effectiveness of the general criteria and processes for initiating, continuing, and discontinuing individual membership in the center.

- Evaluate the qualifications, responsibilities, and effectiveness of senior leaders. Identify if the per cent effort is appropriate. For a competing continuation application, evaluate past performance of each senior leader in overseeing the planning, integration, and coordination of research.

- Evaluate the duties and per cent efforts of administrative staff of the center in terms of their qualifications and contributions to the specialized needs and conduct of the center's research activities.

- Evaluate the effectiveness of the center's internal planning and evaluation activities. Determine who is involved and the mechanisms used. Determine if these activities are documented. Determine if center members have input into decision making, including allocations of funds into cores; if so, how? For a competing continuation application, assess the effectiveness of any changes in the Administrative core and any restructuring to overcome scientific and organizational weaknesses. Evaluate how well the Administrative structure maximizes the center's capability to take advantage of research opportunities, and eliminate or develop shared facitities as needed.

- Evaluate the composition and expertise of external advisory committee(s) relative to the structure and needs of the center. For a competing continuation application, evaluate how effectively the external advisory committee(s) has/have been used to assist in identifying strengths and weaknesses of the center. Identify if any advice has been documented. Determine whether the advice effectively identifies areas of the center requiring special attention, strengthening, or new development. Determine if the advice was used by the center director, the institution, and center members (e.g., development of a new program or shared facility).

(5) Review of Scientific Research Cores

NIEHS centers are expected to have one or more Research Cores designed to focus research efforts and promote scientific interactions among member scientists. Each core or equivalent in an NIEHS center should consist of a group of funded investigators who share common scientific interests and goals. Each core should also serve as a scientific resource to the rest of the center. Interactions among core members should lead to the exchange of information, experimental techniques, and ideas which enhance their individual productivity as scientists and often result in collaborative research projects funded through peer-reviewed mechanisms. Interactive attributes of a core must be evident, e.g., collaborative research projects and/or joint publications. In addition, there should be evidence of leadership which provides intellectual stimulation and guidance to the core, giving it cohesion, focus, and direction.

For each scientific core, an evaluation should include a Description, Critique, Core Leaders, Budget, Resume, and Recommendation. The Critique should be relatively brief (e.g., 2-3 paragraphs) but inclusive. It is not necessary to evaluate each investigator participating in a given research core.

PLEASE USE THE FOLLOWING FORMAT FOR WRITING THIS SECTION:

Description: A concise description including aims, accomplishments and future directions of the proposed core. (Primary Reviewer Only)

Critique: The strengths and weaknesses of various aspects of the core should be presented assessing the merit and justification of the core, the plans for the future and commenting on past progress. Please refer to the review guidelines below. The write-up should be sufficiently detailed to justify the basis of the budget changes and recommendation, but should not take the form of a scientific critique of each of the subunit research sketches.

Key Personnel : Evaluate the qualifications of the professional staff who will participate in the core in terms of their past achievements, their contribution to the proposed program, their potential to provide leadership and direction, and the adequacy of their time commitment. The adequacy of scientific support staff should be addressed. Investigators associated with particular core activities or core resources should be identified by name.

Budget: This narrative section should evaluate the proposed budget and detail any recommended modifications in the requested budget and/or period of support. Adequate justification for these changes must be presented.

Summary and Recommendation: Briefly (2 or 3 sentences) summarize the major considerations of the critique section which form the basis for the recommendation. Assign the Core a descriptor based on your recommendation (see descriptors page 16)

The review guidelines to be used are as follows:

- Evaluate each research core in the center for its justification, focus in environmental health sciences, scientific merit and focus, cohesiveness, strength of the peer-reviewed research base, productivity, evidence of intraprogrammatic scientific interactions, and relevance to the theme of the Center.

- Evaluate whether the whole of the research effort for each research core is greater than the sum of the projects.

- For a competing continuation application, evaluate the scientific and collaborative accomplishments of the research core in relation to its previous aims. Determine whether each research core has contributed to important discoveries or major accomplishments since the last review. Evaluate the productivity of the core through publications, new funded research grants in environmental health sciences, new colloborations ,etc. Determine whether the productivity of core members and the scientific impact of their findings are greater than would occur if the core did not exist.

- Determine if members of each research core logically compose an interactive group with common or complementary research interests and expertise.

- Evaluate how the members of each core exchange information, identify collaborative research opportunities, and implement their ideas. Evaluate the research applications that have been submitted and/or funded by core members who are collaborating in their research. Determine which specific publications or other joint activities have indicated involvement of core members in collaborative design and implementation of research.

- Identify to what degree core members take advantage of opportunities for collaborations with other scientific elements of the center. Determine if the core provides an intellectual resource to the rest of the center and enhances activities of other units.

- Determine if the core makes use of shared facilities and services and derives benefit from these services.

- Evaluate the plans and directions for future research in the core. Assess how existing staff will follow up on new opportunities as well as from where will new staff be recruited.

- Evaluate whether the research core fosters collaborative, state-of-the-art, innovative research in its field and contributes to expansion of research into new areas.

(6) Review of Facility Cores

Facility cores are intended to provide access to technology that enhances the research productivity of the center and provide foci for scientific interaction and consultation. In addition, they may strengthen the administrative and organizational cohesion of the center. The primary function of facility cores is to support established, peer-reviewed, funded research projects. A facility core should be of general benefit to center investigators and less directly identified with the conduct of an individual research project.

As with scientific research cores, an evaluation of a facilities and services core should include a Description, Critique, Personnel, Budget, Resume, and Recommendation.

PLEASE USE THE FOLLOWING FORMAT FOR WRITING THIS SECTION:

Description: A concise description including aims, accomplishments and future directions of the proposed facilities and service core.

Critique: The strengths and weaknesses of various aspects of the facility core should be presented assessing the merit and justification of the facility core, the plans for the future and commenting on past progress. Please refer to the review guidelines below. The write-up should be sufficiently detailed to justify the basis of the budget changes and recommendation.

Key Personnel: Evaluate the qualifications of the professional staff who will participate in the core in terms of their past achievements, their contribution to the proposed program, their potential for sustained activity and development, the adequacy of their time commitment. The adequacy of scientific support staff should be addressed. Investigators associated with essential core activities or core resources should be identified by name.

Budget: This narrative section should evaluate the proposed budget and detail any recommended modifications in the requested budget and/or period of support. Adequate justification for these changes must be presented.

Summary and Recommendation: Briefly (2 or 3 sentences) summarize the major considerations of the critique section which form the basis for the recommendation. Give the descriptor based on your recommendation (see descriptors page 16)

The review guidelines to be used are as follows:

- Evaluate overall use of each core by multiple peer-reviewed, funded research projects. Determine whether past and/or projected use is sufficient to warrant establishment or continuance of the core. Determine if the usage is balanced and broadly based rather than being primarily for the research project(s) of only one or a few individuals.

- Evaluate the core for its overall importance to research activities in the center.

- Evaluate whether the core is likely to become of greater or lesser importance to center members in the future. Determine if the facility core contributed to the expansion of research into new areas.

- Evaluate whether there is sufficient institutional commitment to meet the requirements of the core.

- Determine if the requests for equipment, supplies, and other items are appropriate for the activity of each core.

- Evaluate the cost effectiveness and efficiency of use of the core in the context of the quality, breadth, and utility of service provided.

- Assess the total operational budget of the facility core and the percentage of support requested from the Center grant and determine if the facility core usage by Center members is proportional to support requested.

(7) Review of Pilot Project Program

NIEHS centers are encouraged to include a pilot project program. Funds can be used to provide support of short-term research projects to explore the feasibility of new areas of study and to enable investigators to collect preliminary data for other funding mechanisms. Management of the program must include a means of announcing its availability, a mechanism of scientific merit review, and a record of results. This record must be available to reviewers at the site visit. Input by internal and external advisory committees is strongly encouraged.

PLEASE USE THE FOLLOWING FORMAT FOR WRITING THIS SECTION:

Description: A concise description including the scope and administrative framework for the Pilot Projects Program. Comment on any proposed changes in existing programs. (Primary Reviewer Only)

Critique: The strengths and weaknesses of various aspects of the Pilot Projects Program should be presented. Please refer to the review guidelines below. The write-up should be sufficiently detailed to justify the basis of the budget changes and recommendation and may use examples to illustrate specific strengths and weaknesses, but should not take the form of a scientific critique of each individual Pilot Project.

Key Personnel: Evaluate the qualifications and time commitment of the professional staff who will participate in and administer the Pilot Projects Program should be evaluated.

Budget: This narrative section should evaluate the proposed budget and detail any recommended modifications in the requested budget and/or period of support. Adequate justification for these changes must be presented.

<u>Summary and Recommendation</u>: Briefly (2 or 3 sentences) summarize the major considerations of the critique section which form the basis for the recommendation. Give the descriptor based on your recommendation (see descriptors page 16)

The review guidelines to be used are as follows:

- Evaluate whether pilot project funds have been or will be used to test innovative ideas of particular importance to the development of aquatic models useful for the environmental health sciences.

- Evaluate the review process used by the center to distribute funds for pilot projects.

- For a competing continuation application, evaluate how well pilot project funds have been used to stimulate scientifically productive interactions and collaborations. Evaluate the success of recipients of pilot project support in obtaining independent funding.

- Evaluate the overall plan for and potential effectiveness of the pilot project program in filling gaps in research areas relevant to the scientific focus of the center.

(8) Inclusion of Women and Minorities

NIH policy requires that applications for clinical research studies involving human subjects (as defined in the instructions for the PHS 398) include appropriate representation of women and minorities unless compelling justification is made for their exclusion or inadequate representation. If clinical or population-based research is included in the application and it has not been reviewed according to current NIH policy, the applicant is expected to provide a description of the study, the population involved, and whether or not expected results are generalizable regardless of gender or race.

- Determine if the research protocols of the center generally conform to an institutional policy that provides for the inclusion of women and minorities in study populations.

- Evaluate whether the gender and racial composition of previously nonreviewed studies is described. Decide if there is adequate representation of women and minorities. If not, determine if a clear and compelling rationale is provided.

(9) Other Considerations

NIH policy requires institutional approval for all projects involving human subjects or vertebrate animals. P30 applicants are expected to provide a separate list detailing the investigator's name, project title, grant/contract number, and date of most recent IRB and/or IACUC approval for each individual project regardless of source of funding.

- Identify any concerns if it is not apparent that due consideration has been given to the rights, welfare, and safety of human subjects.
- Identify any concerns regarding the proper care and treatment of vertebrate animals.
- Determine if due consideration has been given to safety issues related to hazardous materials or procedures.
- Issues of administrative concern, such as policy matters or potential scientific and/or budgetary overlap, should be addressed in a separate Administrative Note.

Recommendation Options

Following a site visit, each component, including the essential characteristics, of an NIEHS center application is evaluated separately. Individual reviewers of a given component present their comments and, following discussion, each member of the site visit team provides a rating for that component using the adjectival descriptors listed below. In addition, site visit reviewers are asked to assign a numerical priority score to the overall application. This rating is each reviewer's best evaluation of the merit of the application. (Deleted components should not be considered when formulating the priority score.) Reviewers should use their own individual, personal standards of excellence to arrive at this estimation of quality based on the criteria for the P30 application described above.

Reviewers will determine if the component or application should be:

a) given a merit rating;
b) not recommended for further consideration, i.e., lacking significant and substantial scientific and technical merit in its present form; or
c) deferred for further information. (This is not an option for an application which has received a site visit since the purpose of that visit is to obtain any needed information.)

The following scale from most meritorious (outstanding) to least meritorious (acceptable) should be used for components or applications to be given a merit rating:

Adjectival Descriptor	Priority Score
Outstanding	1.0-1.5
Excellent	1.5-2.0
Very Good	2.0-2.5
Good	2.5-3.5
Acceptable	3.5-5.0

Based on the recommendations of the site visit team and its own deliberations, the EHS Review Committee will assign a final priority score.

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